



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

M E M O R A N D U M

DATE: August 22, 1986
TO: File
FROM: Larry Lumeh *HL*
SUBJECT: Mobil Oil Corporation
R05-8307-04C/IN0111
IND042329631

EPA Region 5 Records Ctr.



318663

Mobil Oil Corporation has operated this facility for about thirty years. The property was owned by Barnes Magnine Oil Company prior to 1930. Sakoni Vacuum acquired it from Barnes Magnine in 1930, operated it until 1955 when Mobil Oil Company bought it. Mobil Oil continued to operate the facility as a refinery until 1972 when it was converted to a storage facility for finished products trucked, shipped or piped in from other active Mobil Company refineries. The Mobil Oil Company property is about one acre in area housing several tanks, a defunct refinery plant, a dock and some office buildings (Figure 1). According to Joe Coco, the current suprintendent, the company use to mentain three landfills on site for disposing refinery sludge, and three sludge pits (20' x 200' x 20') used for dewatering sludge before disposal. Mr. Coco was not certain of the exact location of the landfills, but gave the approximate locations they might have been (Figure 1). The sludge pits still exists, although it is no longer being used. During refinery periods, the sludge pits were occassionally cleaned, and their contents land-filled. However, since the refinery chosed in 1974, the pits haven't been cleaned, nor is it certain whether they were before the landfills were closed. On the day of inspection, an oily liquid was visible below the frozen water layer. No waste quantities or types were known for either the landfills or sludge pits. Because neither

the landfills nor the sludge pits were lined, it was decided during initial inspections (January 12, 1986) that the sludge pits be sampled at a later date when the ice melts. It was assumed the landfills would contain the same wastes as would be found in the sludge pits since the fills were fed from the pits.

Due to its redundancy, the refinery portion of the facility is being dismantled. On the day of the inspection, it was observed that the insulation (mostly asbestos) on the pipes, stacks and boilers had been partially removed. Mr. Coco confirmed that 800 cubic yards of asbestos had been removed, and another 1000 cubic yard is slated for removal by the end of the year (1986). Mobil contracted the Mid-West Asbestos Removal Company of Tinley Park, Illinois for striping the asbestos, and the Calumet Waste Systems of Hammond for transportation to the Wheller landfill for disposal. During removal, Gabriel Laboratories was contracted to monitor the air for safety purposes. The asbestos removal is a first step toward complete demolition of the refinery plant. So far the asbestos removal has been restricted to the open area.

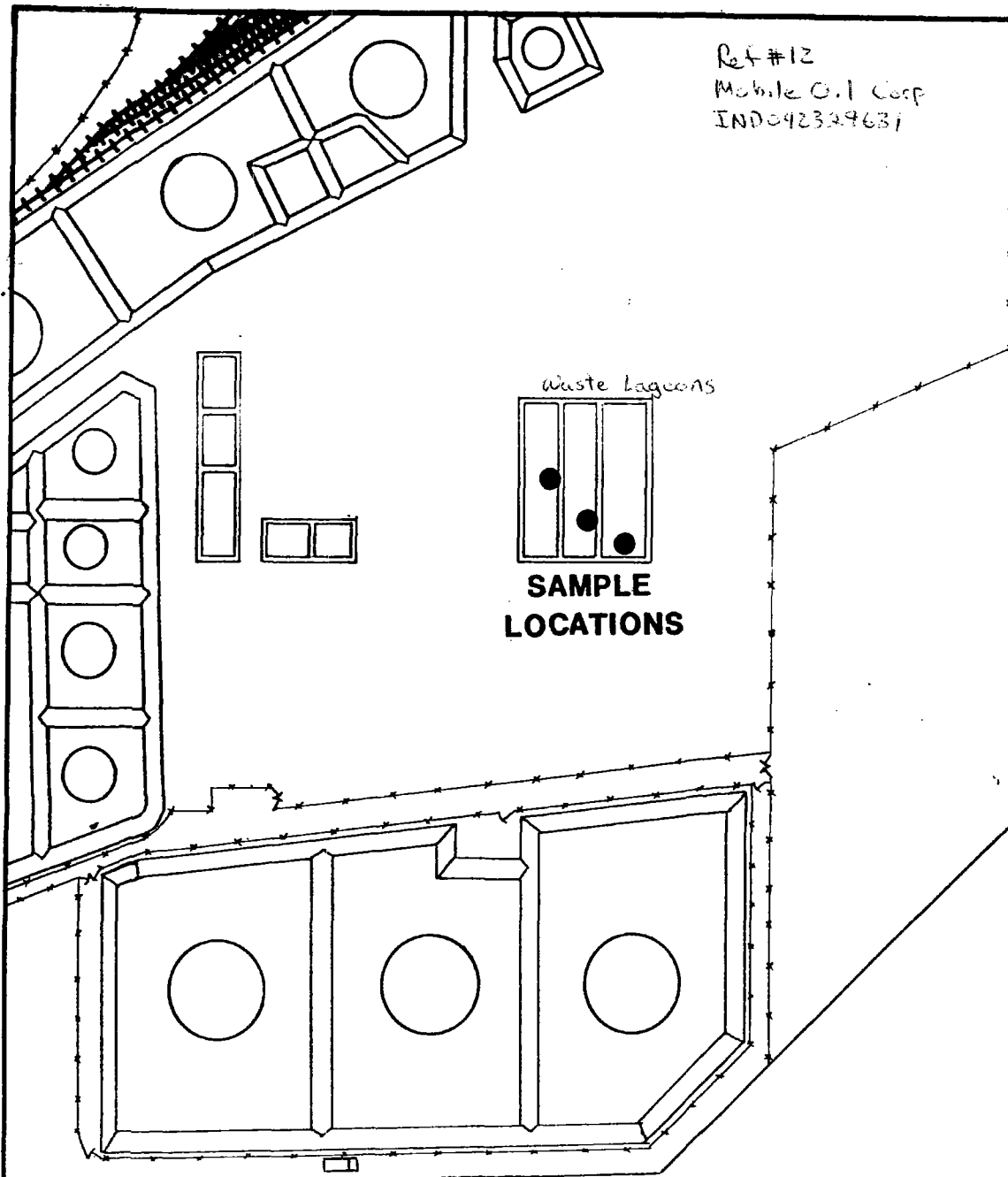
A second visit was made to the site on April 14, 1986 at which time the sludge pits were sampled. Three sediment samples were obtained, one in each pit (Figure 2). The company split sample with FIT for their own analysis. Analysis of these samples indicate the presence of several heavy metals and organics, at extremely high levels: The north, central and southern pits in that order, contained arsenic (53 ppm, 33 ppm, 70 ppm), lead (3440 ppm, 510 ppm, 1220 ppm) and barium (262 ppm, 182 ppm, 268 ppm). Organic contaminants include total xylene (18000 ppm, 900 ppm, 4000 ppm), toluene (3000 ppm, 0.0 ppm, 1100 ppm) and ethyl benzene (3000 ppm, 110 ppm, 980 ppm). (For a complete list of chemicals detected, see Data Sheet-Section 5 of this report). Due to the lack of targets, it is not likely that the pits and landfill pose immediate danger. However, the proximity of these wastes to the ship cannals (Figure 1) may be a long range problem and requires further attention.

There hasn't been any major worker injuries in two and half years. Thirteen full time employees have access to the facility which is fully fenced in with a 6 foot fence topped with barbed wires, and a main gate that is monitored 24 hours a day. Each tank is dyked for protection against spills, and this dyked system is backed-up by a well point system to collect any slope oil from groundwater. The oil is recoverd in a slope oil tank and the water treated before it is dumped to the sity sewere. The company has a permit to mentain this outfall to the sewer, and the city regularly checks the quality of this water. On May 13, 1985, about 100 gallons of oil was spilled at the facility dock on the north. The clean up was supervised by the coast guard and state official notified. An air pollution control permit is mentained for the asbestos removal. Because of the small quantities of tank bottoms the facility generates, it is not considered a hazardous waste generator and not required to obtain permits for their waste. A discharge resolution number was issued to the company for shipping asbestos from their facility.

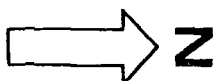
This facility is about 100' from residential homes, 10' - 20' from the Lake George and Indiana Harbour Canals. Even though well secured, it is recommended that:

- (i) The sludge pits be cleaned and restored to normal conditions since the company no longer intends to use it and
- (ii) The landfill locations be correctly identified and monitored to find out if any of the compounds detected in the pits are migrating from the fills. If so, their potential effect on the canals and groundwater must be investigated.

Ref #12
Mobile Oil Corp
IND042329631



SHIP CANAL



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

TITLE SAMPLING LOCATIONS		FIGURE # 2
SITE MOBILE OIL CORP.		SCALE NTS
CITY E. CHICAGO	STATE IN	TDD # R05-8307-04C
SOURCE		DATE
		REVISED